

Bill morphology in the identification of *Isabela Orioles Oriolus isabellae*

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The Isabela Oriole *Oriolus isabellae*, endemic to Luzon in the Philippines, is a threatened species which, until the observations by Gamauf and Tebbich (1995) and van der Linde (1995), was known from only two published lowland rainforest localities (in Bataan and Isabela provinces), with no records since 1961 (Collar *et al.* 1994). The new reports, along with a set of unpublished museum data (specifying Gonzaga, Cagayan province, in April 1960: Collar *et al.* in press), bring to five the number of general localities at which the species has been found.

The rediscovery of any species is welcome, and particularly in this case when its absence on a reasonably well-watched island had been giving increasing cause for alarm. In fact, at least 23 specimens of this bird exist in museums, many of which were taken on the same or successive days, including 10 in the period 6–17 May 1961, the last occasion on which it had been recorded (details in Collar *et al.* in press), so it is clearly likely that the species may be (or at least was once) patchily quite common. Elusive tropical forest birds, long characterized as rare, often prove to be common; apart from the examples in Gaston (1994: 27–28), tape-recording has started to show that another Luzon endemic, the Luzon

Wren Babbler *Napothera rabori*, is one such species (P. A. J. Morris verbally 1996). Nevertheless, the Isabela Oriole disappeared from the record the year after the Luzon Wren Babbler was described, so at this stage it must remain appropriate to treat all new visual reports of the species with caution, particularly when the published details of the observations are, as here, somewhat sketchy and, in relation to one diagnostic character, puzzling.

I refer to the size, shape and colour of the bill. Ogilvie Grant (1895), in his first full account of *O. isabellae* since naming it over a minimal Latin description, wrote that although it bears 'a strong resemblance to [White-lored Oriole] *O. albiloris* in general coloration and appearance', it 'may be easily recognized by its larger size, the bill being twice as stout and brownish black instead of dark red'. He backed this with exposed culmen measurements in inches (converting to 41 mm as against 33 mm) and 'width at gape' (17 mm as against 12 mm). McGregor (1903), having provided the first descriptions of males of both species he personally obtained in the field in 1902, also tabulated various measurements and concluded 'these two species of *Oriolus* are easily distinguished from one another by the great difference



Plate 1. Lateral view of the five specimens detailed in Table 1, in same top-to-bottom order. Photo: N. J. Collar.

Table 1. Bill measurements (in mm) of the five specimens of *Oriolus isabellae* (two), *O. albiloris* (two) and *O. steerii assimilis* (one; type) in NHM. Culmen was measured from skull; depth and width at distal point of nostrils. It is worth noting, given the smallness of the sample, that the measurements given by Ogilvie Grant (1895) and McGregor (1903), and which entirely conform with these, were from seven further specimens (four *isabellae* and three *albiloris*).

	length	depth	width
<i>O. isabellae</i>			
BM 1909.8.3.11 (male)	28	8	7.5
<i>O. isabellae</i>			
BM 1909.8.3.12 (female)	27	8	7.5
<i>O. albiloris</i>			
BM 1909.8.3.10 (male)	21.5	7	6.5
<i>O. albiloris</i>			
BM 1909.8.3.9 (female)	20.5	6.5	6
<i>O. steerii assimilis</i>			
BM 1887.11.20.525 (male)	26	8.5	7.5

in size and color of bill' (29 cm and 'plumbeous blue' in *isabellae*, 22 cm and 'dark reddish brown' in *albiloris*). The size differences were confirmed by Meinertzhagen (1923), re-examining part of McGregor's material: culmen (from nostril) 27–29 mm in *isabellae*, 20–22 mm in *albiloris*. All these data were, alas, missed by Delacour and Mayr (1946), a fact which, combined with their speculation that *albiloris* might be the immature of *isabellae*, suggests that they were working here with minimal reference either to museum specimens or to existing literature. With new material of both forms to hand, Gilliard (1950) was able to show such speculation to be mistaken, one of the critical pieces of evidence being that in *albiloris* 'the bill is short, slender, and deep reddish brown..., not heavy and dark gray... as in *isabellae*.'

It was lore colour and bill morphology to which Gilliard (1950) was referring when he stated that 'these diagnostic characters are sufficiently vivid to be *seen easily in the field*' (my italics); he went on to mention other less striking differences, also picked out by Ogilvie Grant (1895) and McGregor (1903), including the more olive-yellow throat and chest of *albiloris*, the narrow olive striping on its lower chest and flanks, and the blackish subterminal spots on all but the central rectrices (absent in *isabellae*). DuPont (1971) picked up on these other characters but, when treating the bills of the two forms, merely noted the difference in colour ('gray' in *isabellae*, 'dark red' in *albiloris*), not in size. In fact the question of colour is somewhat more uncertain than that of size: the original collector of both species, Whitehead (1899), presumably based on immediate *post mortem* examination, described the bill of *isabellae* as 'dark brown' and that of *albiloris* as 'brownish pink', which, though still emphasizing a difference in shading between the two, is rather less consistent with other accounts (including McGregor's apparently fresh *post mortem* assessment) of plumbeous blue or grey in *isabellae*, dark reddish brown in *albiloris*. Whatever the truth of this,



Plate 2. View from above of Isabella Oriole (left: BM 1090.8.2.11) and White-lored Oriole (right: BM 1909.8.3.9). Photo: N. J. Collar.

however, Plates 1 and 2 show that Ogilvie Grant, McGregor and Gilliard were entirely justified in singling out the bill alongside the lores as distinctive fieldmarks in the separation of the two species. (Incidentally, as noted by McGregor, specimens of *isabellae* show a thin yellow eyering on an olive cheek, a feature lacking in *albiloris*.)

Oriolus albiloris is sufficiently close in structure and plumage to have been treated as a race of Philippine Oriole *O. steerii* by Dickinson *et al.* (1991), and both were treated as conspecific with Dark-throated Oriole *O. xanthonotus* by Inskipp *et al.* (1996) because of the lack of a published justification for treating them as separate species. The key differences between *albiloris* and *steerii* are the white lores and chin, all-yellow underparts, and shaft-stripes confined to the flanks in the former (Ogilvie Grant 1894), although it has to be said that these are all highly distinctive characters that are fully consistent with its treatment as a full species, as pointed out long ago by Hartert (1919) and as indicated recently by Sibley and Monroe (1990), where B. King is credited with suggesting that *albiloris* is actually more closely related to *isabellae* than to *steerii*. The bill of *albiloris* is the same colour (in museum skins) but rather smaller – on subjective visual comparison of NHM material – than any of the races of *steerii*, and most notably than the black-tailed and, sadly, probably extinct *assimilis* of Cebu, whose bill measurements actually approach *isabellae* (Table 1; also Plate 1). My

own impression, however, is the conventional one, that *albiloris* is closer to *steerii* than to *isabellae*; but in any case, one must assume that the differences in bill size of *albiloris* and *isabellae* reflect a distinct ecological separation in two otherwise morphologically convergent, sympatric forms.

It is therefore a little surprising that Gamauf and Tebbich (1995) could describe the bird they saw as possessing 'a slender/dainty greyish bill' that was distinct from the 'shorter, thicker bill' of *albiloris*. Gilliard used the word 'heavy' for the bill of *isabellae*, not 'dainty', and his choice of word is surely vindicated by the accompanying plates. The bill of *albiloris* is certainly shorter, but it is by no means thicker; the fundamental point is that it is very distinctly *smaller* (plates, Table 1). Equally it is curious that van der Linde (1995) made no reference whatever to bill size or colour, resting his identification solely on the presence of yellow lores in the two individuals he saw. It would have been helpful to know if any of the observers involved had had field experience of *albiloris* at the time of their encounters with these yellow-lored birds, and the publication of any further plumage details noted by van der Linde would have been valuable.

It is not, after all, beyond the bounds of possibility that some individuals of *albiloris* could lack white lores, either as an aberration or as a plumage stage (I am unaware if the appearance of newly fledged birds has been recorded). If this were ever shown to be so, van der Linde's record would immediately fall, and Gamauf and Tebbich's would rest on their failure to have seen subterminal spots on the tail and on their account of the bill, neither of which seem to me to be incontrovertible. At any rate, although it seems highly probable that these three observers did indeed see *O. isabellae*, there is at least the possibility that if their records were subject to the scrutiny of a European or American rare birds committee they would be set aside as provisional and inconclusive, very largely as a result of the absence of commentary – or of fully convincing commentary – on the bill morphology of the birds they saw.

There is, of course, an important and difficult general issue framing my interest in these records, namely the conservationist's increasing dependence on the reliability of the unfiltered and in some cases perhaps unfilterable evidence of birdwatchers. Consideration of this problem cannot proceed here but, while it is hard to overstress

the value that birdwatchers represent as a force in conservation, I would just make a general plea for encounters with threatened species that are little known in life and/or hard to identify in the field to be documented and subsequently scrutinized with as much care as circumstances allow.

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REFERENCES

- Collar, N. J., Crosby, M. J. and Stattersfield, A. J. (1994) *Birds to watch 2: the world list of threatened birds*. Cambridge, U.K.: BirdLife International (BirdLife Conservation Series 4).
- Collar, N. J., Tabaranza, B. R., Mallari, N. A. D. and Villasper, J. (in press) *Threatened birds of the Philippines*. Manila: Bookmark, in association with BirdLife International.
- Delacour, J. and Mayr, E. (1946) *Birds of the Philippines*. New York: The Macmillan Company.
- Dickinson, E. C., Kennedy, R. S. and Parkes, K. C. (1991) *The birds of the Philippines*. Tring, U.K.: British Ornithologists' Union (Check-list no. 12).
- duPont, J. E. (1971) *Philippine birds*. Greenville, Delaware: Delaware Museum of Natural History (Monogr. Ser. no. 2).
- Gamauf, A. and Tebbich, S. (1995) Re-discovery of the Isabela Oriole *Oriolus isabellae*. *Forktail* 11: 170-171.
- Gaston, K. J. (1994) *Rarity*. London: Chapman and Hall.
- Gilliard, E. T. (1950) Notes on a collection of birds from Bataan, Luzon, Philippine Islands. *Bull. Amer. Mus. Nat. Hist.* 94: 457-504.
- Hartert, E. (1919) Types of birds in the Tring Museum. *Novit. Zool.* 26: 123-178.
- van der Linde, M. (1995) A further record of the Isabela Oriole *Oriolus isabellae* from Baggao, Cagayan Province, northern Philippines. *Forktail* 11: 171.
- McGregor, R. C. (1903) On birds from Luzon, Mindoro, Masbate, Ticao, Cuyo, Culion, Cagayan Sulu, and Palawan. *Bull. Phil. Mus.* 1: 3-12.
- Meinertzhagen, R. (1923) A review of the genus *Oriolus*. *Ibis* (11)5: 52-96.
- Ogilvie Grant, W. R. (1894) On the birds of the Philippine islands—Part II: the highlands of North Luzon, 5000 feet. *Ibis* (6)6: 501-522.
- Ogilvie Grant, W. R. (1895) On the birds of the Philippine islands—Part III: the mountains of the Province of Isabella, in the extreme North-east of Luzon. *Ibis* (7)1: 106-117.
- Sibley, C. G. and Monroe, B. L. (1990) *Distribution and taxonomy of birds of the world*. New Haven: Yale University Press.
- Whitehead, J. (1899) Field notes on birds collected in the Philippine Islands in 1893-6. *Ibis* (7)5: 81-111.